



## Support to National Efforts for the Promotion of Youth Employment and Management of Migration

### **Serbia: Youth Employment Targets until 2020**

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#### **1. Introduction**

Serbia's overall labour market performance is very poor. Youth labour market is in particularly difficult situation. While employment rate for the whole working age population stood at 47.2 per cent in April 2010, it was only 15.1 per cent for the population aged 15-24. Unemployment rate was 20.1 for working age population, while youth unemployment rate was as high as 46.4 per cent. The ratio of youth to adult (25-64 years old) unemployment rate was 2.63. Over 13% of the total youth population was unemployed.

Over the past several years, growing attention has been paid to the problems of youth employment in Serbia. Apart from the difficulties that young people face in entering the labour market, large numbers of them are engaged in precarious work, often in the informal economy. Youth unemployment and under-employment impose heavy costs on

Serbian society. Prolonged unemployment early in life can affect the prospects of young people's access to decent work. High unemployment reduces the efficiency of investment in education and training, shrinks taxation base and causes higher welfare costs.

Since May 2009 four UN agencies (ILO, IOM, UNDP and UNICEF) have been providing technical assistance to the Government of Serbia through the Joint Programme *Promotion of Youth Employment and Management of Migration*. The aim of this programme is to address the youth employment and migration challenges of the country by combining employment and social policy objectives and integrating them into long-term national development goals. The programme also aims at targeting disadvantaged youth through gender-sensitive programmes linked to social services.

One of the key outputs of the Joint Programme is the development of a number of key youth employment targets to be included in the new employment framework that the Ministry of Economy and Regional Development is currently drafting, covering the next ten-year period. Against this backdrop, the Employment Programme of the ILO Subregional Office for Central and Eastern Europe has requested our assistance to develop achievable employment and youth employment targets to be embedded in the new employment policy framework.

In order to fulfill these requirements, we have

- a) Reviewed the youth labour market indicators for the period 2005-2010;
- b) Developed overall labour market projections for the next ten year period, within the Post-crisis development strategy of Serbia
- c) Developed youth labour market projections for the period 2010-2020, separated for the age groups 15-24 and 25-29
- d) Developed youth employment targets based on the optimal scenario and presented them to the working group set up by the Ministry of Economy and Regional Development to draft the new employment policy framework
- e) After receiving the feedback from the group and ILO, prepared this final report.

## 2. Review of youth labour market developments in the period 2005-2010

Looking at youth labour market developments in the past five years, coinciding with the implementation of the National Employment Strategy of Serbia for the period 2005-2010, we have summarized our findings in the following stylized facts:

- This five-year period could be divided into **two sub-periods** – first, 2005-2008, and second, 2009-2010.
- **First** sub-period is characterized by a moderate relative **improvement** of the labour market position of youth, while the **second** sub-period is characterized by its dramatic **worsening**.
- Since improvement in relative position of youth coincided with the dynamic growth of GDP, while its worsening coincided with the economic recession, there is a pronounced **pro-cyclical behaviour of the youth labour market**.
- However, what is common for both sub-periods is the **decline in youth activity rate**, mostly because of higher participation of youth in education, which appears to be a secular trend.

Tables 1-3 present activity, employment and unemployment rates, respectively, by gender and age groups during the 2005-2010 period.

**Table 1. Activity rates (15-64) by gender and age groups**

	Oct '05	Oct '06	Oct '07	Apr '08	Oct '08	Apr '09	Oct '09	Apr '10
Total	65,2	63,6	63,4	62,8	62,6	60,8	60,5	59,1
Men	74,3	72,7	71,9	71,1	71,3	69,0	68,4	67,4
Women	56,2	54,5	54,9	54,8	54,1	52,8	52,8	50,9
15-24	35,8	37,4	33,3	31,1	33,8	28,3	29,5	28,2
25-34	82,3	80,5	81,5	79,5	78,7	78,8	77,6	78,2
35-54	81,9	80,3	81,9	80,6	79,5	78,2	79,4	78,0

55-64	39,5	36,1	37,4	40,3	41,0	39,8	38,9	37,0
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Source: Labour force survey, Republican Statistical Office

**Table 2. Employment rates (15-64) by gender and age groups, 2005-2010**

	Oct '05	Oct '06	Oct '07	Apr '08	Oct '08	Apr '09	Oct '09	Apr '10
Total	51,0	49,9	51,5	54,0	53,4	50,8	50,0	47,2
Men	61,2	59,2	60,0	62,3	62,2	58,7	57,4	54,3
Women	40,8	40,6	43,0	46,0	44,7	43,3	42,7	40,2
15-24	18,7	19,5	18,7	21,0	21,2	16,8	17,0	15,1
25-34	59,0	59,4	62,6	65,3	63,4	62,7	60,6	57,3
35-44	65,6	64,6	67,7	69,8	76,4	74,3	73,6	71,2
45-54	68,6	66,8	69,9	71,8	67,0	63,7	64,3	61,6
55-64	35,4	32,6	33,5	37,4	37,9	35,9	35,0	32,6

Source: Labour force survey, Republican Statistical Office

**Table 3. Unemployment rates (15-64) by gender and age groups, 2005-2010**

	Oct '05	Oct '06	Oct '07	Apr '08	Oct '08	Apr '09	Oct '09	Apr '10
Total	21,8	21,6	18,8	14,0	14,7	16,4	17,4	20,1
Men	17,6	18,6	16,5	12,4	12,7	15,0	16,1	19,4
Women	27,4	25,5	21,7	16,1	17,3	18,1	19,1	20,1
15-24	47,7	47,8	43,7	32,7	37,4	40,7	42,5	46,4
25-34	28,4	26,1	23,1	18,0	19,4	20,4	21,9	26,7
35-54	20,0	19,6	17,2	13,1	10,5	13,1	14,5	15,6
55-64	16,3	16,8	14,6	10,9	10,4	12,4	13,1	11,6

Source: Labour force survey, Republican Statistical Office

The unemployment rate significantly falls with age – the youngest age group (15–24) experienced the highest unemployment rate. After a period of decline in the youth (15–24) unemployment rate in the period 2005–2007, it started to grow reaching 46.4% in 2010. Such an unemployment rate among the youth (15–24) in Serbia is incomparably

higher than the youth unemployment rate in EU-27 which stood at the level of 20.4% in October 2009.

Particularly worrisome are the trends in youth labour market indicators after the start of the crisis. Comparison of youth labour market indicators with adult ones indicates that the impact of the crisis has been much more strongly felt by the young people than by the adults. Recorded drop in youth employment is huge – around 25% since April 2008, double the drop in employment of working age population. Drop in youth male employment in Serbia stands at stunning 30%, while it is still deep, but much more moderate for female youth employment, standing at around 16%. The available data conform with the expected pattern of adjustment of employment and youth employment to the crisis. What is really surprising is extremely high responsiveness of youth employment elasticities to the drop in GDP (Arandarenko and Nojkovic, 2010). Youth are indeed the worst affected population group among all the vulnerable groups on the labour market (Krstic, 2010).

There are several factors behind this dramatic worsening of youth labour market situation, adding to its traditional poor performance. First, labour market in Serbia is dual, with youth being overrepresented in secondary, largely informal labour market – which was hit much stronger than the primary labour market. Youth are underrepresented in primary public sector, which has been mostly sheltered from the crisis. Second, labour market is also two-tiered, with youth belonging largely to second tier of labour force, on flexible temporary, part-time and fixed-term contracts, in contrast with adult workers mostly on full-time open-ended contracts. Faced with the crisis, the firms shed their second-tier workers first. Third, youth tend to turn back to schooling faced with deteriorating conditions on the labour market, which lowers their activity rates further, compared with the adults who do not have that option.

The outbreak of the crisis in October 2008 was followed by almost immediate worsening of registered unemployment data, with youth unemployment increasing at a faster pace than the adult one. Since June 2009 there is a reverse trend of a slow decline in registered

youth unemployment which could be ascribed to the introduction of the mass youth apprenticeship programme called 'The First Chance', designed specifically to assist the youth facing difficulties in finding the first significant job during the crisis.

### **3. Overall labour market projections until 2020**

In order to define the quantitative youth labour market goals to be achieved by 2020, we had first to project the overall employment trends until 2020. The projections are based on the economic growth projections previously developed as part of Serbia's Post-Crisis Development Strategy, which put into effect a new development paradigm for Serbia as an expression of the wide expert consensus on the necessity of switching to a new growth model.

In our labour market trends projections we have included the assumptions on the work intensity of growth, based primarily on wide comparative experiences, as well as the assumptions of the interdependence of employment, activity and unemployment, based primarily on the previous empirical trends in Serbia. Finally, we have arrived to the appropriate relative indicators (rates of activity, employment and unemployment) by including demographic projections for the adult population and working age population.

As is well known, economic growth can be expressed as the sum of employment and productivity growth. Employment is thus the key contingent in the labour market representing the link between assumptions and projected achievements of the post-crisis development strategy and its effects upon the labour market. The two important implicit assumptions in our employment projections are: 1) finalization of the transitional labour market restructuring process, and 2) transition to a new development model implying the reliance upon the real sources of growth.

Our projections based on the wide comparative evidence and the global and sectoral employment elasticities with regard to the output, best presented and analyzed in a paper

by Steven Kapsos (Kapsos, 2005). Since the output growth projections for Serbia are disaggregated by sectors in more detail than in Kapsos' paper, which assesses the employment intensity of growth separately only for agriculture, industry and services, we have introduced additional assumptions on employment intensity of growth by industrial sectors.

Sectoral employment elasticities with respect to GDP are projected relatively conservatively, i.e. that they are lower than the global average but closer in value to the corresponding elasticities in the comparable countries of Central and Eastern Europe already in the advanced and final stages of transition, particularly when combined with the final stages of accession to the European Union - the two underlying circumstances in Serbia in the next decade.

**Table 4. Assumptions on sectoral employment intensity of growth, Serbia, 2010–2020.**

Sector	Employment elasticity against the GDP, Serbia 2010–2020 <sup>1</sup>	Employment elasticity against the GDP, globally <sup>2</sup>
GDP	0.34 (period average)	0.34
Agriculture	0.1	0.21
Industry, total	0.23 (period average)	0.24
Mining and quarrying	0.25	-
Manufacturing	0.25	-
Electric power industry	0.1	-
Services, total	0.4	0.61

Employment in the public sector is projected based on the commitments of the Government of the Republic of Serbia set forth in the stand by arrangement with the IMF and on the assumption that its expansion will be very limited throughout the next decade. As a result, the relative participation of the administration, health and education employment in the total employment should be reduced from 12.7% in 2010 to 11.8% in 2020.

<sup>1</sup> Employment elasticity is calculated exclusive of public sector employment.

<sup>2</sup> Based on Kapsos, 2005. Global elasticities calculated for the period 1991-2003.

The number of employees is obtained by multiplying the elasticity with the projected GDP growth for the year preceding the year of projection. Namely, it is known that the labour market is, in principle, slower in adapting to economic activity trends, hence the use of the one-year deferment in the projections.

Once we obtain a projected number of employees as a product of the GDP growth rate and the respective elasticity it is possible to calculate the number of non-employed persons as a difference between the projected total working-age population and the number of employed persons.

Projected adult population trends (15+) and working age population (15–64) in the period of 2010–2020 have been taken over from the projections prepared by the Demographic Institute (Penev, 2007). The projections are based on the “low variant” which starts from the following assumptions on fertility, mortality and migration trends: (1) fertility will keep gradually falling, (2) old age mortality will be in decline, (3) two-thirds of the internally displaced persons will become permanent Serbian residents by 2007, a zero migration balance will be realized in the period of 2012–2017 and Serbia will become an immigration region as of 2017.

Based on all of the foregoing assumptions and having at our disposal both sectoral and global projections of GDP trends, we have estimated the values of the basic labour market contingents and indicators for the period of 2010–2020. The results are presented in Tables 5 and 6, showing their patterns of change for the adult population and the working-age population, respectively.

### Projections for Adult Population

**Table 5. Basic labour market indicators for adult population (15+)**

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total	6,350,328	6,267,000	6,230,000	6,196,000	6,162,000	6,126,000	6,090,000	6,056,000	6,027,000	6,003,000	5,983,000	5,966,000
Active	3,107,557	3,090,000	3,100,054	3,112,766	3,131,902	3,154,051	3,176,957	3,199,533	3,225,674	3,254,319	3,288,139	3,322,419
Employed	2,590,188	2,540,000	2,568,324	2,599,172	2,638,939	2,683,666	2,729,443	2,773,986	2,821,537	2,870,622	2,925,339	2,979,529
Unemployed	517,369	550,000	531,730	513,594	492,963	470,385	447,514	425,547	404,138	383,697	362,801	342,891
Inactive	3,242,771	3,177,000	3,129,946	3,083,234	3,030,098	2,971,949	2,913,043	2,856,467	2,801,326	2,748,681	2,694,861	2,643,581
Participation rate	48.94%	49.31%	49.76%	50.24%	50.83%	51.49%	52.17%	52.83%	53.52%	54.21%	54.96%	55.69%

Employment rate	40.79%	40.53%	41.23%	41.95%	42.83%	43.81%	44.82%	45.81%	46.81%	47.82%	48.89%	49.94%
Unemployment rate	16.65%	17.80%	17.15%	16.50%	15.74%	14.91%	14.09%	13.30%	12.53%	11.79%	11.03%	10.32%

According to our projections, the total employment will touch the bottom line precisely in 2010, only to return to the pre-crisis level, but no sooner than around 2013 and from there onwards it will grow steadily at an annual average rate of over 50,000 persons. By the end of the period, total employment will be close to 3,000,000 i.e. about 440,000 employed persons more than this year.

Total unemployment, on the other hand, will peak in 2010 and by 2013 it will start declining mildly. The trend will gain speed by the end of the period, so that the number of unemployed will total about 340,000 by the year of 2020.

#### Projections for working age population (15–64 years of age)

**Table 6. Main labour market indicators of the working age population (15–64)**

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total	4,905,189	5,018,000	4,997,000	4,969,000	4,930,000	4,881,000	4,828,000	4,774,000	4,725,000	4,680,000	4,636,000	4,594,000
Active	2,967,632	2,950,000	2,961,687	2,972,737	2,989,730	3,009,470	3,029,909	3,050,086	3,073,666	3,099,666	3,130,538	3,161,899
Employed	2,450,643	2,400,000	2,429,957	2,459,143	2,496,767	2,539,085	2,582,395	2,624,539	2,669,528	2,715,969	2,767,738	2,819,008
Unemployed	516,989	550,000	531,730	513,594	492,963	470,385	447,514	425,547	404,138	383,697	362,801	342,891
Inactive	1,937,556	2,067,999	2,035,312	1,996,262	1,940,269	1,871,529	1,798,090	1,723,913	1,651,333	1,580,333	1,505,461	1,432,100
Participation rate	60.50%	58.79%	59.27%	59.83%	60.64%	61.66%	62.76%	63.89%	65.05%	66.23%	67.53%	68.83%
Employment rate	49.96%	47.83%	48.63%	49.49%	50.64%	52.02%	53.49%	54.98%	56.50%	58.03%	59.70%	61.36%
Unemployment rate	17.42%	18.64%	17.95%	17.28%	16.49%	15.63%	14.77%	13.95%	13.15%	12.38%	11.59%	10.84%

Source: own projections

The employment rate of the working-age population will reach its absolute minimum this year and is expected to return to a level of over 50% only in 2013. From then onwards, begins its steady and strong growth, which will be additionally underlined by a rapid decrease of the employment rate denominator, i.e. decline in the working age population. This will happen primarily because of the disproportion between the small entry cohorts, (generations that will reach the age of 15 in the course of the following decade), and the large exiting *baby boom* cohorts (generations that will turn 65 years of age). Owing to the

interaction between employment growth and working-age population decline, the employment rate will exceed the 60% limit and reach 61.4% in the last year for which projections are made.

The employment rate for the working-age population will reach its peak this year and then it will very gradually decrease to less than 15% around 2015, approaching single-digit levels (with 10.84%) only in 2020.

#### **4. Youth labour market (15-29) projections until 2020**

A number of additional assumptions have been introduced in projecting the trends in youth labour market until 2020. Per terms of reference, projections for youth have been extended from the standard age limit of 24, to an extended limit of 29 years of age. However, we have introduced different assumptions about the patterns of adjustment of age group 15-24, on the one hand, and age group 25-29, on the other hand. Consequently, we have developed two sub-sets of youth labour market projections – one for the age group 15-24 ('youth'), and another for the age group 25-29 ('young adults').

#### **Labour market projections for the youth (15-24), 2010-2020**

Our projections for this group are based on the following information and assumptions

- **Population** aged 15-24 was calculated on the basis of median projection of the Republican Statistical Office
- **Employment** of this age group grows at the same dynamics (proportionally) as the total employment – assumption of pro-cyclicality of youth employment
- **Activity rate** grows **slower**, by 50%, compared with the growth in activity rate of the total working age population. This is in accordance with the trend from the previous period, as a consequence of the increasing participation in education. The total number of active youth, however, slightly declines over the ten-year period because of the faster decline in the population aged 15-24.

- **Unemployment** is calculated as a residual: active youth population – employed youth population.

Based on these assumptions, we are able to present labour market projections for the youth aged 15-24 in Table 7 below.

**Table 7. Basic indicators of youth labour market, optimistic scenario**

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total	861,208	899,282	877,045	854,808	838,242	821,676	805,110	788,544	771,978	770,650	769,321	767,993
Active	253,997	241,863	254,343	249,085	245,687	242,396	239,078	235,653	232,204	233,302	234,503	235,655
Employed	146,112	129,575	148,963	155,950	158,336	161,020	163,767	166,439	169,292	172,237	175,520	178,772
Unemployed	107,885	112,288	105,380	93,135	87,351	81,376	75,312	69,214	62,912	61,064	58,983	56,884
Inactive	607,212	616,527	622,702	605,723	592,555	579,280	566,032	552,891	539,774	537,348	534,818	532,338
Participation rate	29.5%	28.2%	29.0%	29.1%	29.3%	29.5%	29.7%	29.9%	30.1%	30.3%	30.5%	30.7%
Employment rate	17.0%	15.1%	17.0%	18.2%	18.9%	19.6%	20.3%	21.1%	21.9%	22.3%	22.8%	23.3%
Unemployment rate	42.5%	46.4%	41.4%	37.4%	35.6%	33.6%	31.5%	29.4%	27.1%	26.2%	25.2%	24.1%

Source: own projections

### **Labour market projections for the age group of younger adults (25-29), 2010-2020**

Our projections for this group are based on the following information and assumptions

- **Population** aged 25-29 was calculated on the basis of median projection of the Republican Statistical Office
- **Employment** of this age group grows at the same dynamics (proportionally) as the total employment – assumption of pro-cyclicality of youth employment
- **Activity rate** grows at the same dynamics (proportionally) with the growth in activity rate of the total working age population. Unlike with the youth aged 15-24, the key assumption for this age group is that, since they have largely completed their education, their labour market response is the same as for the rest of adult population.
- **Unemployment** is calculated as a residual: active youth population – employed youth population.

Based on these assumptions, we are able to present labour market projections for the younger adults aged 25-29 in Table 8 below.

**Table 8. Basic labour market indicators for the younger adults (25-29), optimistic scenario**

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total	431,015	514,779	510,124	505,469	493,613	481,757	469,902	458,046	446,190	438,981	431,772	424,562
Active	311,525	364,328	361,034	361,177	356,832	352,786	348,652	344,192	339,649	338,476	337,502	336,282
Employed	228,920	243,063	245,774	248,726	252,531	256,811	261,192	265,455	270,005	274,702	279,938	285,124
Unemployed	82,605	121,265	115,260	112,451	104,301	95,974	87,460	78,737	69,644	63,774	57,564	51,158
Inactive	119,490	150,451	149,090	144,292	136,781	128,972	121,250	113,854	106,541	100,504	94,270	88,280
Participation rate	72.3%	70.8%	70.8%	71.5%	72.3%	73.2%	74.2%	75.1%	76.1%	77.1%	78.2%	79.2%
Employment rate	53.1%	47.2%	48.2%	49.2%	51.2%	53.3%	55.6%	58.0%	60.5%	62.6%	64.8%	67.2%
Unemployment rate	26.5%	33.3%	31.9%	31.1%	29.2%	27.2%	25.1%	22.9%	20.5%	18.8%	17.1%	15.2%

Source: Own projections

## 5. Youth employment targets for 2020

Our labour market scenarios until 2020 for the age groups 15-24 and 25-29 are based on optimistic scenarios of average annual GDP growth of almost 6% during the next decade. As such, the projected labour market indicators could serve as ambitious enough targets to be achieved by 2020. However, what remains to be resolved is the question what should be the main target indicators, and should they be different or the same for both age sub-groups.

We have opted for **two different sets of targets**, because the two age groups have very different labour market situation, and it is likely that they will diverge, rather than converge in some important aspects during the next decade. The response of members of age group 15-24 to improved overall economic and labour market situation will be ambivalent – increased participation in employment will most likely be coupled with the increased participation in education, which is technically inactivity. Share of persons aged 15-24 who are in education is secularly growing, and the process can even become

more intensive as the returns to education increase in the growing economy. Unemployment and inactivity not related to education should decline, but the overall activity rate will only modestly increase.

On the other hand, the younger adults aged 25-29 will be able to fully utilize the widening possibilities in the labour market, which will even provide additional incentives to those in higher education to get their diplomas on time. Therefore, their employment and activity rates should grow at the same pace and at least at the same pace as the same rates for prime age and older workers.

Based on these deliberations, we have suggested two different sets of labour market indicators as the key targets for the two age subgroups.

#### **Labour market targets for youth 15-24**

For this age group we recommend that the **unemployment rate** should be the **key indicator** to be targeted. Since its projected value under optimistic economic scenario in 2020 is 24.1 percent, we suggest that the target unemployment rate should be set at **24 percent**. This would represent an improvement of 22 percentage points compared to 2010, meaning that the youth unemployment rate should be almost halved during the next decade.

In addition to this key goal, we propose four more subsidiary targets

- ratio of youth unemployment rate and unemployment rate for the working age population should not be higher than 2.1 to 1;
- employment rate for youth should not be lower than 24 percent;
- share of youth aged 15-19 participating in education should not be lower than 90 percent; and
- share of youth aged 20-24 participating in education should not be lower than 40 percent.

## **Labour market targets for younger adults 25-29**

For this age group we recommend that the **employment rate** should be the **key indicator** to be targeted. Since its projected value under optimistic economic scenario in 2020 is 67.2 percent, we suggest that the target employment rate should be set at **68 percent**. This would represent an increase of over 20 percentage points compared with the situation in 2010.

In addition to this key objective, we propose three more subsidiary targets:

- activity rate of 80 percent
- unemployment rate of 15 percent and
- ratio of unemployment rate of younger adults to the unemployment rate of working age population not higher than 1.5 to 1.

## **References**

- Arandarenko, M. and A.Nojkovic, 2009: The impact of global economic and financial crisis on youth employment in the Western Balkans, ILO, Geneve, mimeo.
- Krstic, G. 2010 (ed.): Polozaj ranjivih grupa na trzistu rada Srbije, FREN and UNDP.
- Kapsos, S., 2005: The employment intensity of growth: trends and macroeconomic determinants, Employment Strategy Papers, 12, ILO.
- Penev, G., 2007: Projekcije stanovnistva Srbije 2002-2052, Pregled, br. 3.

